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INFORMATION REPORT

REPORT

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SUBJECT Facilities and Layout of the Insulation
Coating Laboratory, Institute 160, Fryazino

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(LISTED BELOW)PLACE
ACQUIRED

25X1

SUPPLEMENT TO
REPORT NO.

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THIS IS UNEVALUATED INFORMATION

25X1 1. The building [] was four stories high, 60 m long x 20 m wide.

25X1

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First Floor The machine and electrical shops were installed on this floor.
Second Floor The library, administration office, duplicating, drafting, and theoretical rooms, and a section of the high frequency laboratory were located on the second floor.

Third Floor The work done on the third floor was considered very secret and very few Germans worked there. (It is to be noted that Germans were not allowed to work in all laboratories because of the high security classification assigned the work conducted therein.) This floor contained laboratories for thyratron tubes, television tubes, and high frequency.

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Fourth Floor The Chemical Department and sections of the High Frequency and Television Departments were on this floor.

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25X1 2. Institute #160 in October 1946,
 25X1 the Insulation Coating Laboratory of the Chemical Department. This
 25X1 laboratory was fitted out with various equipment from the USA and
 25X1 Germany. /See Enclosure (A), Sketch 1, of this report for the floor
 25X1 plan showing work installations of the Insulation Coating Laboratory.
 / This laboratory was located on the fourth floor.

3. The following equipment was located in the Insulation Coating Laboratory:

Point 1 Technical equipment closet

Nails, hammers, tubs, weights, rags, etc, were stored here.

Point 2 (Same as Point 1)

Point 3 Drying oven

This oven had a temperature range from 0°-200°C and had been built by Heravs Co, in Hanau. It was table-mounted.

Point 4 Wash basin

The wash basin had but one faucet and only cold water was available.

Point 5 Work bench

- (a) A scale for weighing mixtures was located here. This 0-1000 gram scale, which had an accuracy of 10 milligrams, was equipped with a set of weights from 500 grams to 10 milligrams.
- (b) An enlarging device used to determine whether the aluminum oxide powder was ground fine enough. The enlargement was shown on a frosted glass screen. The trade name of this device was "Lanometer". It was made by Zeiss-Jena; 500 power. The "Lanometer" did not operate properly because the lamps, similar to a 6-volt auto lamp, had been lost in transit from Germany and procurement of these lamps involved much delay.

Point 6 Office desk

There was one desk lamp, used for both desks. There were no telephones.

Point 7 Office desk

25X1

Point 8 Wall shelf

Weighing scale, capacity from 0-200 grams (0-1 milligram accuracy); it had a rider for 0-10 gram adjustment. Divisions were at every 0.2 milligrams. The scale was not accurate. It had been made at Budapest; the commercial name was "Erdelin" (approximate spelling).

Point 9 Table

Used by Mr Yevstigneyev, the engineer. No technical equipment was located on this table; it had one drawer.

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Point 10 Work table

One microscope was located here. It was manufactured by the Leitz Co, in Germany, and had a 50 x 200 power amplification. There was also a binocular on this table which had a 15 power amplification. This binocular was used somewhat like the microscope, ie, the filaments were carefully scrutinized to determine whether the coating or surface was smooth and even.

Point 11 Work table

25X1

One tank for [] coating method #1 was located on this table. Usually two girls worked here.

Point 12 Work table

Two weighing scales were located on this table--one was a 50 milligram scale, American made, and the other was a 500 milligram scale, German made. Both were torsion type balances. These were used to weigh the heaters and filaments after coating. The filaments were weighed prior to and after coating to determine proper thickness. A tank was also located on this table. It was used for coating the larger heaters, ie, heaters that were too large to be coated in the tanks on the other table (Point 11), and anodes with the graphite and nickel paste. (For this paste, one gram of graphite was used to 4 grams of nickel nitrate.)

Point 13 Iron frame

25X1

25X1

A spraying stand was located on this frame [see Enclosure (A), Sketch 2]. This spraying method was discontinued [] in this laboratory. However, it was still used for extra heavy coatings applied to spiral filaments, considered "secret" by the Soviets. []

Point 14 Wooden table

25X1

25X1

25X1

25X1

25X1

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25X1

25X1

An electric muffle furnace with a temperature up to 1000°C was located on this table. The furnace was used for drying the aluminum oxide which was received in a very wet condition. The first samples of Soviet-made aluminum oxide arrived from the vicinity of Moscow. By the end of summer 1950 [] five-kilogram packages, packed in paper bags. One bag was used [] every two months. [] received about 100 bags between September 1950 and April 1952, and [] test them and place them in storage. They were not stored in the building [] they were used in the tube production building. [] the material received from the USA (which arrived in large sacks) prior to 1947 was superior in quality. The furnace came from Germany; but, like most other equipment, the manufacturer's nameplate had been removed.

Point 15 Wooden stand

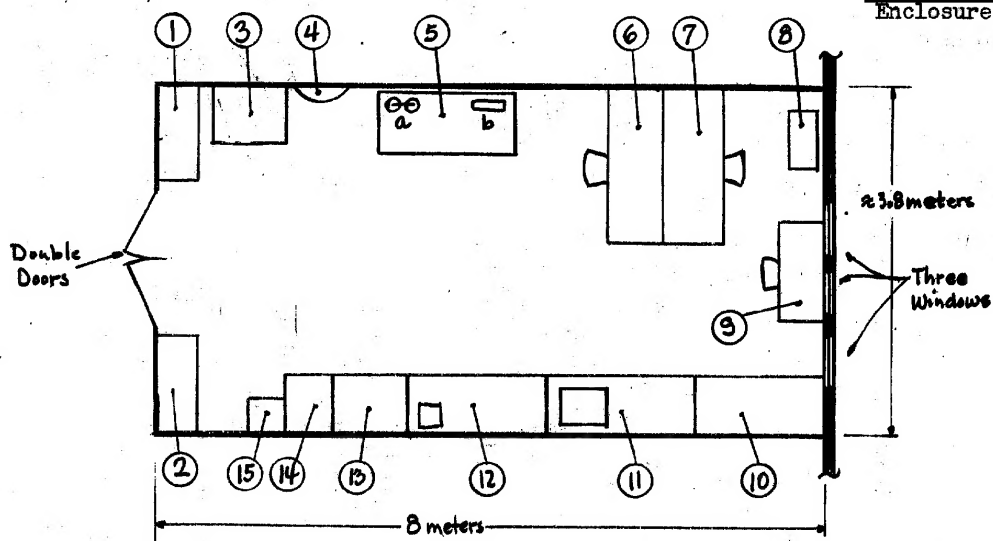
A heating plate for heating coffee, tea, milk, etc, was attached to this stand. The Soviet girls ate here. [] a snack bar in a small building near the entrance of Institute #160.

ENCLOSURE (A) Sketch 1 - Plan View of Insulation Coating Laboratory
Sketch 2 - Cabinet for Spraying and Drying

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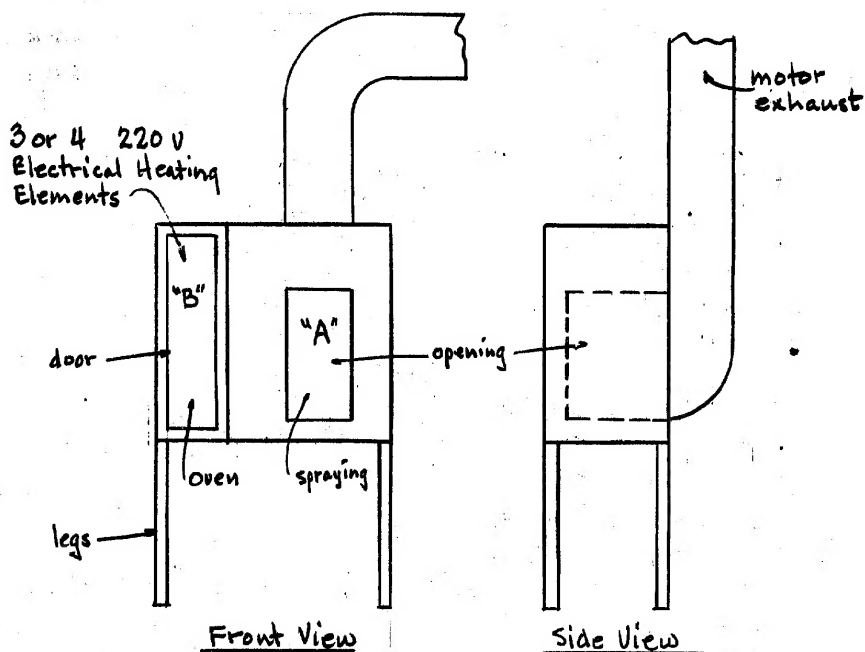
Enclosure A



Plan View of Insulation Coating Laboratory
(Located on the 4th Floor) SKETCH #1

"A" Filaments were sprayed within this area

"B" Filaments suspended from clamps attached to aluminum sheets took from 3 to 15 minutes for drying



Cabinet for Spraying and Drying
SKETCH #2

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